



Building Consistency Meeting Minutes – 5.3.17 RESIDENTIAL

Public Attendance (Contractors, Architects, Engineers): 17

MCCE Staff Attendance: 38

Overview of Today's Agenda

- Today's agenda items: 4 recap, 7 new.
- Today's training topic – **No training today.**

Welcome, Housekeeping, & Customer Service

- Mecklenburg County Code Enforcement is abbreviated as MCCE throughout the minutes.
- Consistency meetings in all trades have adopted a 4-hour format with 2-hours for consistency items and 2-hours allotted for ISO & CE. With regard to staff ISO hours, these meetings & trainings are able to be counted as Technical or Mentoring ISO time if one chooses, but any portion of time counted as one ISO category could not also be counted as any other category. Trade consistency meetings are scheduled monthly as follows:
 - Building Consistency (Comm) – 1st Tuesday of every month @ 8am.
 - Building Consistency (Res) – 1st Wednesday of every month @ 8am.
 - Electrical Consistency – 2nd Wednesday of every month @ 8am.
 - Mechanical Consistency – last Tuesday of every month @ 8am.
 - Plumbing Consistency – last Wednesday of every month @ 8am.
- Reminder of deadline established for topic/question submissions to building consistency team:
 - Third Wednesday of every month.
 - Deadline set to allow team time to research/explain code logic behind decisions.
 - Submit by email to Jeff Vernon, Bldg Code Administrator
jeff.vernon@mecklenburgcountync.gov
 - Submit online:
<http://charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/Tools/Forms/Pages/ConsisTopicSubmit.aspx>
- Training topics for future building consistency meetings, Comm (C) & Res (R). Topics in **bold** are approved to count toward CE credit hours; all topics count toward ISO hours.
 - June 6 - (C) – TBD
 - June 7 - (R) – TBD
- Building code qualification classes at CPCC
 - 2017 April 28-30; May 12-14 – Level I
 - 2017 July 21-23; Aug 5 & 6 – Level III
 - 2017 Sep 22-24; Oct 7 & 8 – Level II
 - 2017 Nov 17-19; Dec 1-3 – Level I

Residential Consistency (4 review items, 7 new items) – 2 hrs of Tech ISO

1. Open items or unresolved questions from last meeting:
 - a. **Clarifications on wall bracing req'mts presented in last month's training session.**
 - The five sections in R602.10 (March 2013 version from NC DOI), provided as pathways to compliance for wall bracing, were interpreted with sections 1 & 2 being prescriptive and sections 3-5 requiring a Design Professional. Bill Kirk of NC DOI has clarified the original intent as only section 3 requiring a Design Professional. Sections 1, 2, 4, & 5 can all be used without the involvement of a Design Professional.
 - Any masonry stem walls 48" or less in length that support braced wall panels (BWP) shall be reinforced per R602.10.5.3; this includes stem walls supporting BWPs using the portal frame (PF) bracing method.



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- When using the Continuous Sheathing bracing method, all sheathable surfaces of the exterior walls are req'd to have sheathing, even if the design calls for an interior braced wall line & panels.
- The commentary language (printed in red) of the revised section R602.10 that was issued by NC DOI in March of 2013 was adopted by the ad hoc committee & presented to the Bldg Code Council. It is enforceable as code language.
- Tony Kiser, Multi-trade Inspector, asked if there needed to be a screw/nail pattern inspection for BWPs. Jeff Griffin, Res Inspections Manager, and Patrick Biddy, Plans Examiner, said that was not a req'd inspection but one Contractors have been calling in at their option. If a Contractor does not call in that optional inspection, then MCCE would not get to see the fastening pattern. However, it remains the responsibility of the Contractor to fasten it correctly.
 - Jeff Griffin went further to say that due to some of the recent legislative bills, MCCE should refrain from performing any more screw/nail pattern inspections.
- b. **What is the difference between gravel and sand?**
 - Gravel is an aggregate of rounded or angular fragment of rocks and minerals. Per the unified soil classification system, particle sizes ranging from 4.75mm to 76.2mm are categorized as gravel.
 - Sand is a cohesionless aggregate of coarse, sharp, angular particles. Per the unified soil classification system, particle sizes ranging from 0.075mm to 4.75mm are categorized as sand.
- c. **Is there a minimum distance between hold-down devices for effectiveness?**
 - Jeff Griffin, Res Inspections Manager, found some data from Simpson Strong-tie that varied depending on the specific device. The distance was always around 12".
 - Jeff Griffin found a 7" min distance req'd between standard ½" anchor bolts.
 - Brian Goins, Multi-trade Inspector, said he sees them too close on lugs @ garage doors that have been modified to accommodate the goal post framing. He asked if they are supposed to require the Contractor to tear them out & redo them OR request them to involve an Eng'r. Jeff Griffin and Jeff Vernon, Bldg Code Administrator, said to give them the option of involving an Eng'r.
 - Chris Kearns, Contractor, brought up the fact that anchor bolts under stud packs aren't possible to inspect @ framing stage b/c they are covered. He asked why foundation anchors weren't treated the same as the fastening pattern on BWPs where they can't always be inspected and are left to the responsibility of the Contractor. Jeff Griffin said foundation anchorage is one of the top 5 highest failure rates and therefore had to be inspected. Jeff also said anchor bolts should not occur under stud clusters b/c notching studs to accommodate the bolt heads is not allowed. In cases like that, another anchoring method needs to be found.
- d. **Can you field cut the vertical height of CMU at the top of foundation walls & piers?**
 - Sections R606.6.1 (piers) & R606.14 (masonry beam support) require minimum thicknesses of solid masonry or conc at the top course. Any cutting of the vertical height of the top course of CMU could not reduce the thickness of that course below the minimums stated in these Code sections.
 - Jeff Griffin, Res Inspections Manager, said he believed there was an NC DOI interpretation that allowed hollow masonry at the top course of exterior foundation walls. This will be researched & discussed again in next month's meeting.



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2. What Code governs stairs from upper floors that require remote exits in a Licensed Residential Care Home per Section 425 in the 2012 NC Bldg Code?

- a. Stairs are governed by the NC Res Code per the following email from Carl Martin, NC DOI:

*It appears that 425.2.1 is intending **remotely located means of egress** as described in Section 1015.2 of the **NC Bldg Code** (1/2 the distance of the longest diagonal of the floor).*

*The wording of Section 425.2 appears to indicate that the **building** only needs to comply with the **NC Res Code** along with the additional provisions of 425.2.1 thru 425.2.4. Since 425.2.1 does not specifically state that the stairs must comply with the NC Bldg Code for protection, it appears that the **intent is to meet the NC Res Code requirements for the stairs** based on the reference to the NC Res Code at the end of Section 425.2.*

- b. Patrick Biddy, Plans Examiner, mentioned that residential care in a 2-story home often requires the addition of a 2nd stair down from the second story (typically on the exterior) to meet req't for two remote exits from each story per 425.2.1 of the 2012 NC Bldg Code.

3. Is MCCE req'd to enforce manufacturer's installation req'mts on roofing materials?

- a. **Yes.** Both R904 & R905 state roof assemblies & coverings shall be installed per the manufacturer's instructions, **BUT** MCCE cannot add or enforce req'mts that are not in the manufacturer's instructions or elsewhere in the Code.
- This question & issue are stemming from an insurance adjustor who is attempting to get MCCE to require the use of drip edge. The NC Res Code does not require drip edge. The shingle manufacturer provides options in their installation instructions to install their shingles w/o drip edge. Therefore, MCCE **will not require** drip edge.

4. What is the proper location of foundation vents relative to the corners of the house?

- a. Based on the illustrated figure in the Res Code Commentary & common industry practice, the req'mt of Section R408.1.2 for one foundation vent within 3' of each corner has long been interpreted as requiring a vent in each direction of the corner.
- b. However, based on a response from Bill Kirk of NC DOI, one vent within 3' of each corner **in any direction** meets the minimum code req'mt per R408.1.2.
- c. The idea for vents in each direction of the corners may have risen out of attempts to provide cross-ventilation, but cross-ventilation is only mentioned if someone uses the exception under R408.1.1 for reduced net area of ventilation. Even then the code does not specify how to achieve cross-ventilation.

5. What is required for masonry head joints on foundation walls?

Section R607.2.1 specifies that head & bed joints shall be 3/8" thick. The intent is also that the mortar fills the entire depth of the head joint.

6. Are single-ply headers allowed on stair landings?

- a. Section R502.10 specifies that header joist spans exceeding 4' the trimmer & header joists shall be doubled.
- b. Marcel Papineau, Structural Eng'r, said they have a pre-built landing design for stairs that only uses a single-ply header. Jeff Griffin, Res Inspections Manager, said this condition needs to be researched further to determine what MCCE will require to be included on plans & in the field when this design is used.



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7. How are fire separation distances handled on townhouses with easements / rights-of-way?

Where fire-rated construction req'd by fire separation distance from a property line isn't provided AND/OR where the townhome arrangement requires public access across privately owned parcels of townhome units, then No-Build & Public Way easements must be created for the parcels involved. This is a legally binding agreement that is deeded & recorded with the County Recorder's office, and the agreement must be written in such a way that it remains in place even if the property or properties are sold. In some cases these agreements must be in place prior to receiving issued permits, and in all cases prior to receiving the Certificates of Occupancy or Compliance.

8. Does MCCE have a specific form for Alternate Methods / Materials?

Yes. The form was recently created to handle the influx of requests for Alternate Methods / Materials and has been used successfully for many of those requests. The form is attached to these minutes.

9. What are some of the upcoming legislative bills that may affect Code Enforcement?

a. HB 252

- Modifies HB 255 to allow employees of Engineers/Architects to inspect components or elements on the seal holder's behalf.
 - The language in HB 255 does not specify what a "component" or "element" is. MCCE takes the position that it would not be large systems like the entire bldg, the entire foundation system, all the framing, etc. There is more documentation in the works that MCCE is developing w/ the County Attorney to address the use of HB 252 & HB 255. One piece of this will be a req'd form submitted by the Design Professional at the beginning of the project declaring what specific elements/components for which they are taking full responsibility.
 - Marcel Papineau, Structural Eng'r, asked what is the procedure for things that arise after a project is in plan review or even after const has begun. Jeff Vernon, Bldg Code Administrator, said we would have to address those situations as they arise.
 - HB 255 allows the Design Professional to take full responsibility, and MCCE is not involved with the specified component/component at all. If the Eng'r's involvement isn't intended to remove MCCE's inspection or oversight, then the issue is handled through an Eng'r letter or bulletin as it always has been; HB 255 isn't being utilized.
- HB 252 also introduces new requirements for an internal review process of inspection decisions. This review must be reported to a Legislative Committee by Jan 15th of each year.

b. S 131

- Directs BCC to create an exception for F, S, & U Occupancies from req'd compliance with the NC Energy Conservation Code.

c. HB 379

- Forms a task force – which includes a member from the construction industry – to identify and eliminate "overly burdensome" or ineffective regulation.



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- d. **HB 552**
 - Changes to GC license req'mts to put the determination of an applicant's "good moral character" at the Board's discretion and remove any disqualification for specific felony convictions.
- e. **HB 794 – NC Permitting Efficiency Act of 2017**
 - The local Authority Having Jurisdiction (AHJ) must publish a list of all the req'mts to get a permit and must give a schedule showing the maximum amount of days required to obtain a permit.
 - A question was asked if these req'mts applied to any agency issuing permits (Zoning, Air Quality, Food Services, etc.) or just Code Enforcement. This will be researched to address again at a future meeting.
- f. Use the following link to access more info on these legislative bills:
<http://www.ncleg.net/gascripts/BillLookUp/BillLookUp.pl>

10. Questions / clarifications / comments from the floor: None.

Training Topic – No Training Today



REQUEST FOR ALTERNATE METHOD / MATERIAL

Project Information:

Residential Single Family Project: Y N	Commercial Project: Y N
Code Enforcement Project No:	Permit No:
Project Name:	Owner:
Project Address:	Suite No:
Date Requested:	

Person Requesting the Alternate Method / Material:

Name:		
Requestor's Association with the Project:		
Phone Numbers:	Office:	Mobile:
Email Address:		
Mailing Address:		

Registered Design Professional in Responsible Charge (RDPIRC):

(Architects or Engineers must be licensed in the State of North Carolina)

Name:		
Firm Name:		
Phone Numbers:	Office:	Mobile:
Email Address:		
Mailing Address:		

CODE SECTION(S) FOR WHICH THE ALTERNATE IS BEING REQUESTED:

Trade(s)	Code Year	Section Number & Title
B E M P		
B E M P		

Reason for Alternate Request: _____

Explain how the proposed alternate continues to maintain the spirit and the intent of the Code (i.e. how it is equivalent to the level of protection prescribed by the Code: _____

Please identify any supporting documentation attached to this request. (e.g. test data, Materials Safety Data Sheets, etc.)

- 1.
- 2.
- 3.

Additional Comments: _____

Signatures:

Requestor

RDPIRC

Office use only

Results: Approved Denied Need More Information Cancelled

Reason: _____

Code Administrator

Director, Code Enforcement (optional)

Alternate Method / Material Process:

Per NC Administrative Codes and Policies, section 105, alternate materials, designs or methods of construction are allowed by the code provided the alternate has been approved by the Code Enforcement Official. In Mecklenburg County, these are reviewed by the Code Administrator for the respective trade(s) and/ or the Director of Code Enforcement using the following procedure.

- The Registered Design Professional in Responsible Charge (RDPIRC), the owner, a lessee or other duly authorized representative for the project must submit a letter of request on company letterhead that includes the following information along with supporting documentation.
 - Identify the project by address, project number and / or permit number as applicable.
 - Identify the code section(s) involved and state which material or method is to be substituted, omitted or excepted from the code requirement.
 - Identify the proposed alternate and explain how the alternate material or method will re-establish the project to the equivalent level as prescribed by code. Note: if the proposed alternate does not establish equivalency, it cannot be approved for use in the project.
- The applicant shall provide all supporting data, technical reports, product data sheets, drawings, sketches, computer models, calculations and / or other data that substantiates and justifies the request. The information supplied shall be specific to the products to be used on the project.
- Unless otherwise noted, the approval of an alternate material or method is specific to a particular project and shall not be applied to other projects. Each submittal shall be evaluated on the conditions and merits of the request for each individual project.

If you have questions or comments, please contact the appropriate Code Administrator for additional information on this process.

Code Administrators

 Building - Jeff Vernon, 980-314-3097
Jeff.Vernon@Mecklenburgcountync.gov

 Electrical - Gary Mullis, 980-314-3098
Gary.Mullis@Mecklenburgcountync.gov

 Mechanical and Plumbing – Tommy Rowland, 980-314-3099
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